



Axial shaft seal VRM02

DESCRIPTION

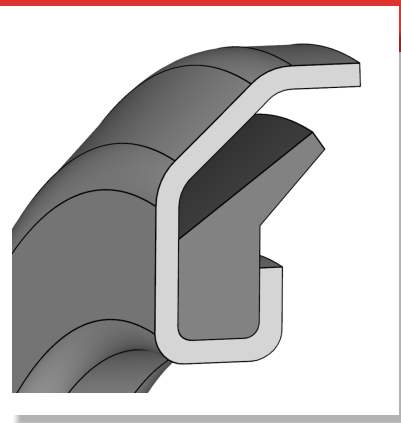
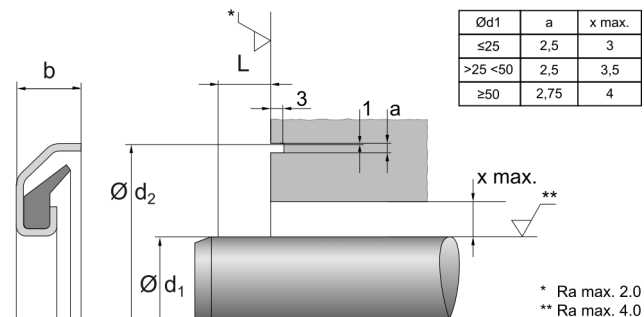
- Extended metal seat
- Sealing material: NBR, FKM
- Material stiffening plate: Steel DIN EN 1.0204 (SAE 1008), coated

FUNCTION

- Sealing against dust, dirt, grease, oil or water splashes
- Protects radial shaft seals or bearings from abrasive ambient conditions as a primary sealing element (lip seal or flinger ring)
- Stiffening plate protects elastomer sealing element from damage and generates a supporting centrifugal effect

PRODUCT ADVANTAGES

- Good dynamic sealing effect
- Relatively insensitive to eccentricity
- Relatively insensitive to shaft misalignment
- Relatively insensitive to shaft runout
- Friction decreases with increasing peripheral speed
- Reliable design with broad application spectrum for moderately demanding applications in general industry



- Good price/performance ratio
- Manufactured by certified external suppliers

APPLICATIONS

- Drive technology
- Construction and agricultural machinery
- Cardan shafts
- Gearboxes
- Power saws
- Pumps
- Washing machines
- Machine tools
- Bearing pedestal seal

APPLICATION LIMITS

- Pressure [Mpa]: max. 0
- Peripheral speed [m/s]: max. 12
- The values given here are maximum values and may not all be reached at the same time.

NBR

- Temperature [°C]: -40 to 80, short-term up to 100

FKM

- Temperature [°C]: -25 to 150

MEDIA RESISTANCE

NBR

- Good chemical resistance to various mineral oils and greases (H, HL, HLP)
- Flame-retardant hydraulic fluids HFA and HFB, HFC up to appr. +50°C
- Water up to max. +60°C
- Low resistance to ozone, weathering and ageing





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FKM

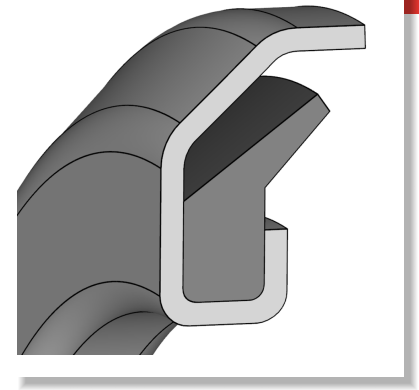
- Good chemical resistance to mineral oils and greases, synthetic oils and greases, engine, gearbox and ATF oils up to approx. +150 °C
- Fuels, flame-retardant pressure fluids HFD, aliphatic, aromatic and chlorinated hydrocarbons
- Water up to max. +60°C
- Very good resistance to ozone, weathering and ageing

CONFORMITY AND CERTIFICATES

- Please consult the material data sheet valid for the respective material for current information on approvals and certificates, as this information depends on the compound and cannot be listed exhaustively here.

DESIGN GUIDELINE

- Shaft surface roughness $R_z = 1.0$ to $4.0 \mu\text{m}$
- No surface shape deviations or defects such as sharp edges, burrs, blowholes, waviness, elevations or damage permitted
- Chamfer on shaft 10-20°, polished transition
- Mating surface should be at right angles to the shaft
- Counterface surface roughness $R_a \leq 2 \mu\text{m}$
- Shaft tolerance zone: ISO h9



INSTALLATION GUIDELINE

- Avoid any damage during installation
- Grease the elastomer sealing element before assembly to improve the dynamic coefficient of friction and thus ensure a longer service life
- Do not grease the seal or installation space for assembly
- Hammer mounting is not permitted

STORAGE ADVISE

- Storage temperature $< 25^\circ\text{C}$
- No direct heat sources
- No direct sunlight
- No condensation in the storage room
- No exposure to ozone or ionizing radiation
- Recommendations based on the revision of ISO 2230 dated 16.09.1992

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